REMARKS

In response to the Office Action mailed October 25, 2005, Applicants respectfully request reconsideration. To further the prosecution of this application, Applicants have amended the claims and submit the following remarks.

I.   Interview with the Examiner

Applicants' representatives, Melissa A. Beede and Randy J. Pritzker, thank Examiner Le for her courtesy in granting and conducting a telephone interview held on January 24, 2006. During the interview, Applicants' representatives discussed with the Examiner the rejections of the independent claims. Specifically, Applicants' representatives discussed the distinctions of the independent claims with respect to the Daum reference, and proposed language for clarifying these distinctions in the claims. The independent claims have been amended along the lines of what was discussed. The Examiner indicated that the proposed language appeared to overcome the outstanding rejections.

II.   Overview of the Invention

Applicants have provided an overview of one aspect of the present invention below to assist the Examiner in appreciating one possible application of the present invention. The overview is provided merely for the Examiner's convenience, and is not intended to characterize any of the independent claims.

One conventional identifier for tracking an item through a supply chain or manufacturing process is an electronic product code (EPC) (page 1, line 22 – page 2, line 5). An EPC is typically burned into a memory of an RFID tag as a fixed binary number having 64 or 96 bits, and identifies an item by manufacturer, product type, and product serial number (page 2, lines 8-10). The EPC is in a standardized format that enables it to be decoded by an object naming service (ONS) (page 2, lines 5-8 and 22-24).

One aspect of the present invention relates to adapting an EPC to allow it to convey information relating to a condition of an item (e.g., temperature, weight) with which it is associated (page 4, lines 20-22 and page 5, lines 27-31). For example, the EPC may include a variable portion that is updated (e.g., by a processor in an RFID tag) to include information relating to such a condition (page 4, lines 23-26). The variable portion could be any one or more of the manufacturer, product type, and/or product serial number fields (page 4, lines 27-28). This dynamic EPC may be processed with the same reader and network infrastructure as is used for existing RFID tags which have static EPCs (page 5, lines 13-15).

As the overview is provided merely to assist the Examiner in appreciating one possible application of the present invention, the Examiner is requested to not rely upon the summary characterization above, but to closely examine each of the independent claims to ensure that each distinguishes over the references of record for the reasons discussed below.

III   Claim Rejections under 35 U.S.C. §103(a) over Daum and Abali

Claims 1-15, 27-35 and 40, including independent claims 1 and 27, are rejected under 35 U.S.C. §103(a) as being obvious over Daum et al. (U.S. Patent No. 6,826,267) in view of Abali et al. (U.S. Patent No. 6,712,276). Independent claims 1 and 27 have been amended to clearly distinguish over the prior art of record.

    a.   Independent Claim 1

Claim 1, as amended, is directed to an apparatus, comprising at least one storage device storing at least one dynamic identifier associated with at least one item, the at least one dynamic identifier configured to include at least one variable portion, comprised of one or more bits which were previously fixed and not used to represent any detectable condition, which has at least one of a variable content and a variable length and represents, at least in part, at least one detectable condition associated with the at least one item.

As discussed during the interview with the Examiner, Daum discloses a command frame 200, which is divided into multiple fields (col. 3, lines 44-45). One such field is the DATA field,

which is comprised of a variable number of bits (col. 3, lines 45-47; col. 4, line 18). Certain other fields (e.g., the MFG field and the APPL TYPE field, col. 4, lines 6-17) are used to the identify appliance being controlled.

While the DATA field is variable, it is not "comprised of one or more bits which were previously fixed." Thus, the DATA field may not be considered at least one variable portion of a dynamic identifier, as recited in claim 1. The MFG field and the APPL TYPE field may be considered identifiers, as they serve some identifying function; however, these fields are neither variable nor representative of a detectable condition. Thus, the MFG and APPL TYPE fields may not be considered at least one variable portion of a dynamic identifier, as recited in claim 1.

Similarly, although not relied on for such a teaching, Abali also does not disclose or suggest a dynamic identifier configured to include at least one variable portion, as recited in claim 1. Abali discloses an Integrated Circuit Sensor (ICS) that combines a radio frequency identification device (RFID) 110 and a sensor system 101 (e.g., a temperature sensor), e.g., on a single chip 100 (col. 2, lines 34-38). In response to an interrogation signal 151 from a digital assistant (DA) 200, the ICS will send the unit identification embodied in the RFID 110 together with measurement data from the sensor system 101 (col. 2, line 64 – col. 3, line 6). Abali *does not* disclose that the unit identification may be configured to include any measurement data from the sensor system 101. Thus, while the unit identification may be considered an identifier, it is neither variable nor representative of a detectable condition. Accordingly, the unit identification may not be considered at least one variable portion of a dynamic identifier, as recited in claim 1.

In addition, Applicants note that the motivation set forth in the Office Action to combine the teachings of Daum and Abali is not found in the references themselves. Thus, the rejection is based, at least in part, on alleged knowledge in the art, or "well-known" prior art pursuant to MPEP §2144.03. Applicants respectfully traverse the assertion that there is any well-known prior art that would have motivated one of ordinary skill in the art to modify the Daum system based on the teachings of Abali to achieve the apparatus recited in claim 1. If the rejection is to be maintained, the Examiner is respectfully requested to cite a reference in support of her position as required in MPEP §2144.03, or if the Examiner is relying upon facts within her personal knowledge, to file an affidavit establishing those facts pursuant to §2144.03.

In view of the foregoing, neither Daum nor Abali, nor any combination thereof, teaches or suggests at least one dynamic identifier configured to include at least one variable portion, comprised of one or more bits which were previously fixed and not used to represent any detectable condition, which has at least one of a variable content and a variable length and represents, at least in part, at least one detectable condition associated with the at least one item, as recited in claim 1. Therefore, these references do not render obvious claim 1. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 2-26 depend from claim 1 and are allowable for at least the same reasons.

b.   Independent Claim 27

Claim 27, as amended, is directed to a signal transporting at least one dynamic electronic product code (EPC) associated with at least one item, the at least one dynamic EPC configured to include at least one portion, comprised of one or more bits which were previously fixed and not used to represent any detectable condition, which is variable to represent, at least in part, at least one detectable condition associated with the at least one item.

In rejecting claim 27, the Office Action refers the comments presented for claim 1. Claim 27 includes language similar to that of claim 1. Thus, for reasons similar to those discussed in connection with claim 1, neither Daum nor Abali, nor any combination thereof, discloses or suggests at least one dynamic EPC configured to include at least one portion, comprised of one or more bits which were previously fixed and not used to represent any detectable condition, which is variable to represent, at least in part, at least one detectable condition associated with the at least one item, as recited in claim 27.

In addition, the Office Action refers to the arguments presented for claims 6-7, which relate to the dynamic identifier being an electronic product code (EPC). The Office Action alleges, in connection with these claims, that the MFG and APPL type fields of Daum represent an EPC. Applicants respectfully disagree. There is nothing in Daum to suggest that the identifying portions of the command frame 200 represent an EPC, rather than a generic product identifier.

In view of the foregoing, neither Daum nor Abali, nor any combination thereof, teaches or suggests at least one dynamic EPC configured to include at least one portion, comprised of one or more bits which were previously fixed and not used to represent any detectable condition, which is variable to represent, at least in part, at least one detectable condition associated with the at least one item, as recited in claim 27. Therefore, these references do not render obvious claim 27. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 28-40 depend from claim 27 and are allowable for at least the same reasons.

IV.   Claim Rejections under 35 U.S.C. §103(a) over Daum, Abali and Shaw

Claims 16-26, 36-39 and 41, including independent claim 41, are rejected under 35 U.S.C. §103(a) as being obvious over Daum et al. in view of Abali et al., and further in view of Shaw (U.S. Patent No. 6,563,417). Independent claim 41 has been amended to clearly distinguish over the prior art of record.

a.   Independent claim 41

Claim 41, as amended, is directed to an apparatus, comprising at least one storage device storing at least one dynamic identifier associated with at least one item, the at least one dynamic identifier configured to include at least one variable portion, comprised of one or more bits which were previously fixed and not used to represent any detectable condition, which has at least one of a variable content and a variable length and represents, at least in part, at least one detectable condition associated with the at least one item; at least one sensor to monitor the at least one detectable condition and provide raw condition information representing the at least one detectable condition; and at least one processor, coupled to the at least one storage device and the at least one sensor, to process the raw condition information to provide processed condition information that is different from the raw condition information, the at least one processor configured to periodically update the at least one dynamic identifier so as to provide a representation of the processed condition information as the variable content in the at least one variable portion of the at least one dynamic identifier.

As discussed in connection with claim 1, neither Daum nor Abali, nor any combination thereof, discloses or suggests at least one dynamic identifier associated with at least one item, the at least one dynamic identifier configured to include at least one variable portion, comprised of one or more bits which were previously fixed and not used to represent any detectable condition, which has at least one of a variable content and a variable length and represents, at least in part, at least one detectable condition associated with the at least one item.

Further, although not cited for this purpose, the Shaw reference also does not disclose a dynamic identifier, as recited in claim 41. While the "unique identifier" disclosed in Shaw (e.g., col. 5, lines 40-41) may be considered an identifier, it is neither variable nor representative of a detectable condition. Accordingly, the unique identifier of Shaw may not be considered at least one variable portion of a dynamic identifier, as recited in claim 41.

In view of the foregoing, no combination of Daum, Abali, and Shaw discloses or suggests at least one dynamic identifier associated with at least one item, the at least one dynamic identifier configured to include at least one variable portion, comprised of one or more bits which were previously fixed and not used to represent any detectable condition, which has at least one of a variable content and a variable length and represents, at least in part, at least one detectable condition associated with the at least one item, as recited in claim 41, and therefore cannot render obvious this claim. Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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Respectfully submitted,
Schmidtberg et al., Applicants

By: *Melissa Beede*

Melissa A. Beede
Reg. No. 54,986
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Building
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
(617) 646-8000